

1 What is claimed is:

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3 1. A high-frequency (HF) module with a HF circuit board (1), on which at
4 least one first antenna part (6) is located, with a housing part (2), on which at
5 least one second antenna part (7) is located, and with a shielding cover (3),
6 whereby the HF circuit board (1) is installed between the housing part (2) and the
7 shielding cover (3),

8 wherein the HF circuit board (1) includes at least one through opening (8), the
9 housing part (2) has at least one peg (10) which extends into the through
10 opening (8), and the peg (10) is connected with the diametrically opposed
11 surface (14) of the shielding cover (3).

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13 2. The HF module as recited in Claim 1,
14 wherein the peg (10) has a stop (11), and the peg (10) extends into the through
15 opening (8) until this stop (11) is reached.

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17 3. The HF module as recited in one of the Claims 1 or 2,
18 wherein the housing part (2) is made of a plastic capable of being penetrated by
19 laser beams, the shielding cover (3) is made of a plastic capable of being heated
20 up by laser beams, and the housing part (2) and the shielding cover (3) are
21 joined using laser full-penetration welding.

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23 4. The HF module as recited in one of the Claims 1 through 3,
24 wherein the shielding cover (3) is joined with the HF circuit board (1) using
25 shielding adhesive (15) or shielding dry seals.

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27 5. The HF module as recited in one of the Claims 1 through 4,
28 wherein the shielding cover (3) includes at least one socket (12) which is located
29 in the region of the through opening (8) of the HF circuit board (1) and extends,
30 at least in its edge region (13), up to the HF circuit board (1), and the peg (10) of
31 the housing part (2) is connected with the socket (12) of the shielding cover (3).

1 6. The HF module as recited in one of the Claims 1 through 4,
2 wherein the shielding cover includes at least one peg-like projection, which also
3 extends into the through opening of the circuit board, and the peg of the housing
4 part is connected with the peg-like projection of the shielding cover.

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6 7. A method for assembling a HF module with a HF circuit board (1), on
7 which at least one first antenna part (6) is located, with a housing part (2), on
8 which at least one second antenna part (7) is located, and with a shielding part
9 (3), whereby the HF circuit board (1) is installed between the housing part (2) and
10 the shielding cover (3),

11 wherein the HF circuit board (1) is provided with at least one through opening (8),
12 and the housing part (2) is equipped with at least one peg (10), the HF circuit
13 board (1) and the housing part (2) are adjusted relative to each other—and, as a
14 result, so are the two antenna parts (6, 7)—by inserting the peg (10) into the
15 through opening (8), and the peg (10) is connected with the diametrically
16 opposed surface (14) of the shielding cover (3).

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18 8. The method as recited in Claim 7,
19 wherein the peg (10) includes a stop (11), and the peg (10) is pressed into the
20 through opening (8) until this stop (11) is reached.

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22 9. The method as recited in one of the Claims 7 through 8,
23 wherein the housing part (2) is made of a plastic capable of being penetrated by
24 laser beams, the shielding cover (3) is made of a plastic capable of being heated
25 up by laser beams, and the housing part (2) and the shielding cover (3) are
26 joined using laser full-penetration welding.

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28 10. The method as recited in one of the Claims 7 through 9,
29 wherein the shielding cover (3) is connected with the HF circuit board (1) using
30 shielding adhesive (15) or shielding dry seals.

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1 11. The use of a HF module as recited in one of the Claims 1 through 6 within
2 the framework of a short range radar, in particular for motor vehicle applications.